

=> d his

(FILE 'HOME' ENTERED AT 15:33:42 ON 11 OCT 2005)  
SET COST OFF

FILE 'HCAPLUS' ENTERED AT 15:33:52 ON 11 OCT 2005

L1 1 S US20020155991/PN OR (US2002-086451# OR FR2001-2979)/AP,PRN  
E PHILIPPE M/AU  
L2 326 S E3-E5,E25-E27  
E PHILIPPE M/AU  
E PHILLIPPE M/AU  
L3 14 S E3-E5,E8  
E PHILLIPPE M/AU  
E BENARD S/AU  
L4 15 S E3,E7  
L5 4933 S (OREAL? OR LOREAL? OR L()OREAL?)/PA,CS  
SEL RN L1

FILE 'REGISTRY' ENTERED AT 15:36:07 ON 11 OCT 2005

L6 8 S E1-E8  
SEL RN 5-8  
L7 4 S L6 NOT E9-E12  
L8 3 S (D-TYROSINE OR L-TYROSINE OR DL-TYROSINE)/CN  
SEL RN  
L9 335 S E13-E15/CRN  
L10 146 S L9 AND PMS/CI  
L11 1 S L10 AND CH4O  
L12 43 S C3H7NO2 AND L10  
L13 2 S L12 NOT ALANINE  
L14 4 S L10 AND C2H5NO2  
L15 6 S L10 AND C9H11NO3 AND 1/NC  
L16 43 S L10 AND 2/NC  
L17 54 S L10 NOT L11-L16  
E (C9H9NO2)/MF  
L18 17 S E5  
SEL RN 14 15 17  
L19 3 S E1-E3  
E (C9H9NO2)/MF  
L20 2 S E6,E7  
L21 12 S L11,L13,L15,L19

FILE 'HCAPLUS' ENTERED AT 15:53:55 ON 11 OCT 2005

L22 265 S L21  
L23 4 S L22 AND L1-L5

=> fil reg

FILE 'REGISTRY' ENTERED AT 15:54:33 ON 11 OCT 2005  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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Property values tagged with IC are from the ZIC/VINITI data file  
provided by InfoChem.

STRUCTURE FILE UPDATES: 10 OCT 2005 HIGHEST RN 864908-12-3  
DICTIONARY FILE UPDATES: 10 OCT 2005 HIGHEST RN 864908-12-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

jan delaval - 11 october 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

```
*****
*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*
*****
```

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> d ide can tot l21

L21 ANSWER 1 OF 12 REGISTRY COPYRIGHT 2005 ACS on STN  
RN 462117-51-7 REGISTRY  
ED Entered STN: 17 Oct 2002  
CN L-Tyrosine, homopolymer, methyl ester (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF (C9 H11 N O3)x . C H4 O  
PCT Polyamide, Polyamide formed, Polyester, Polyester formed  
SR CA  
LC STN Files: CA, CAPLUS, USPATFULL

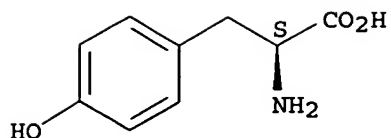
**\*\*RELATED POLYMERS AVAILABLE WITH POLYLINK\*\***

CM 1  
  
CRN 67-56-1  
CMF C H4 O

H<sub>3</sub>C-OH

CM 2  
  
CRN 25619-78-7  
CMF (C9 H11 N O3)x  
CCI PMS  
  
CM 3  
  
CRN 60-18-4  
CMF C9 H11 N O3

Absolute stereochemistry. Rotation (-).



1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:221793

L21 ANSWER 2 OF 12 REGISTRY COPYRIGHT 2005 ACS on STN  
RN 457625-05-7 REGISTRY  
ED Entered STN: 01 Oct 2002  
CN L-Tyrosine, polymer with L-lysine and N-methylglycine (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF (C9 H11 N O3 . C6 H14 N2 O2 . C3 H7 N O2)x  
CI PMS  
PCT Polyamide, Polyamide formed, Polyester, Polyester formed  
SR CA  
LC STN Files: CA, CAPLUS, USPATFULL

CM 1

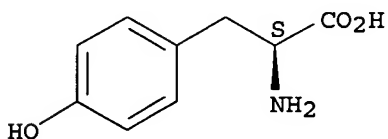
CRN 107-97-1  
CMF C3 H7 N O2

MeNH-CH<sub>2</sub>-CO<sub>2</sub>H

CM 2

CRN 60-18-4  
CMF C9 H11 N O3

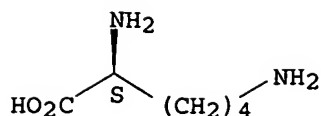
Absolute stereochemistry. Rotation (-).



CM 3

CRN 56-87-1  
CMF C6 H14 N2 O2

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:221793

L21 ANSWER 3 OF 12 REGISTRY COPYRIGHT 2005 ACS on STN  
RN 457625-04-6 REGISTRY  
ED Entered STN: 01 Oct 2002  
CN L-Tyrosine, polymer with N-methylglycine (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF (C9 H11 N O3 . C3 H7 N O2)x  
CI PMS  
PCT Polyamide, Polyamide formed, Polyester, Polyester formed  
SR CA  
LC STN Files: CA, CAPLUS, USPATFULL

CM 1

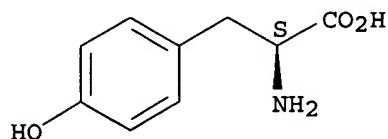
CRN 107-97-1  
CMF C3 H7 N O2

MeNH-CH<sub>2</sub>-CO<sub>2</sub>H

CM 2

CRN 60-18-4  
CMF C9 H11 N O3

Absolute stereochemistry. Rotation (-).



1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:221793

L21 ANSWER 4 OF 12 REGISTRY COPYRIGHT 2005 ACS on STN  
RN 142847-49-2 REGISTRY  
ED Entered STN: 07 Aug 1992  
CN L-Tyrosine, hexamer (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF (C9 H11 N O3)6  
CI PMS  
SR CA

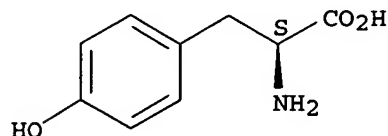
LC STN Files: CA, CAPLUS

CM 1

CRN 60-18-4

CMF C9 H11 N O3

Absolute stereochemistry. Rotation (-).



2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:252981

REFERENCE 2: 117:90965

L21 ANSWER 5 OF 12 REGISTRY COPYRIGHT 2005 ACS on STN

RN 142847-48-1 REGISTRY

ED Entered STN: 07 Aug 1992

CN L-Tyrosine, trimer (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF (C9 H11 N O3)3

CI PMS

SR CA

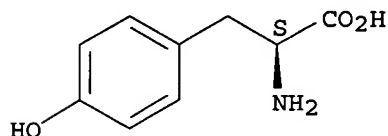
LC STN Files: CA, CAPLUS

CM 1

CRN 60-18-4

CMF C9 H11 N O3

Absolute stereochemistry. Rotation (-).



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 117:90965

L21 ANSWER 6 OF 12 REGISTRY COPYRIGHT 2005 ACS on STN

RN 32109-39-0 REGISTRY

ED Entered STN: 16 Nov 1984

CN Poly[imino[(1R)-1-[(4-hydroxyphenyl)methyl]-2-oxo-1,2-ethanediyl]] (9CI)  
(CA INDEX NAME)

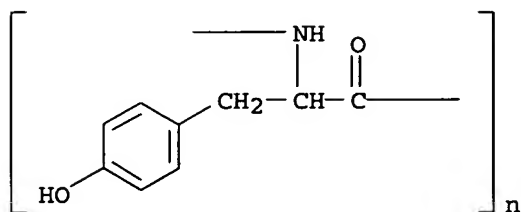
OTHER CA INDEX NAMES:

CN Poly[iminocarbonyl(p-hydroxyphenethylidene)], D- (8CI)

MF (C9 H9 N O2)n

CI PMS  
 PCT Polyamide  
 LC STN Files: CA, CAPLUS

**\*\*RELATED POLYMERS AVAILABLE WITH POLYLINK\*\***



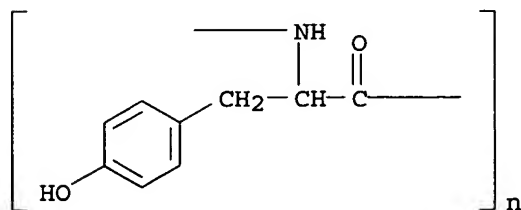
2 REFERENCES IN FILE CA (1907 TO DATE)  
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 75:71444

REFERENCE 2: 67:52214

L21 ANSWER 7 OF 12 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 31724-37-5 REGISTRY  
 ED Entered STN: 16 Nov 1984  
 CN Poly[imino[1-[(4-hydroxyphenyl)methyl]-2-oxo-1,2-ethanediyl]] (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Poly[iminocarbonyl(p-hydroxyphenethylidene)], DL- (8CI)  
 MF (C9 H9 N O2)<sub>n</sub>  
 CI PMS  
 PCT Polyamide  
 LC STN Files: ANABSTR, CA, CAPLUS, MEDLINE

**\*\*RELATED POLYMERS AVAILABLE WITH POLYLINK\*\***



2 REFERENCES IN FILE CA (1907 TO DATE)  
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 74:60908

REFERENCE 2: 66:74411

L21 ANSWER 8 OF 12 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 31630-26-9 REGISTRY  
 ED Entered STN: 16 Nov 1984  
 CN Tyrosine, DL-, peptides (8CI) (CA INDEX NAME)

## OTHER NAMES:

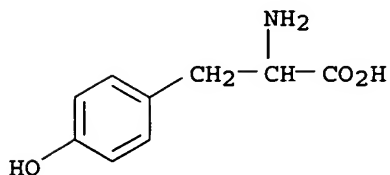
CN Poly-DL-tyrosine  
MF (C9 H11 N O3)x  
CI PMS  
PCT Polyamide, Polyamide formed, Polyester, Polyester formed  
LC STN Files: CA, CAPLUS

## \*\*RELATED POLYMERS AVAILABLE WITH POLYLINK\*\*

CM 1

CRN 556-03-6

CMF C9 H11 N O3



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 74:60908

L21 ANSWER 9 OF 12 REGISTRY COPYRIGHT 2005 ACS on STN

RN 30704-25-7 REGISTRY

ED Entered STN: 16 Nov 1984

CN D-Tyrosine, homopolymer (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Tyrosine, D-, peptides (8CI)

OTHER NAMES:

CN Poly-D-tyrosine

FS STEREOSEARCH

MF (C9 H11 N O3)x

CI PMS

PCT Polyamide, Polyamide formed

LC STN Files: CA, CAPLUS, CHEMCATS, CSCHEM, MSDS-OHS

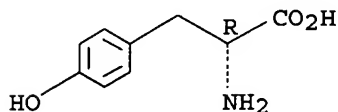
## \*\*RELATED POLYMERS AVAILABLE WITH POLYLINK\*\*

CM 1

CRN 556-02-5

CMF C9 H11 N O3

Absolute stereochemistry.



4 REFERENCES IN FILE CA (1907 TO DATE)

4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 117:65865

REFERENCE 2: 117:43790

REFERENCE 3: 75:71444

REFERENCE 4: 67:52214

L21 ANSWER 10 OF 12 REGISTRY COPYRIGHT 2005 ACS on STN

RN 30442-80-9 REGISTRY

ED Entered STN: 16 Nov 1984

CN L-Tyrosine, dimer (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Tyrosine, L-, dimer (8CI)

FS STEREOSEARCH

DR 27476-39-7

MF (C9 H11 N O3)2

CI PMS

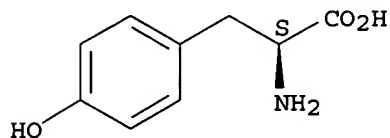
LC STN Files: CA, CAPLUS

CM 1

CRN 60-18-4

CMF C9 H11 N O3

Absolute stereochemistry. Rotation (-).



5 REFERENCES IN FILE CA (1907 TO DATE)

5 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 134:109944

REFERENCE 2: 117:90965

REFERENCE 3: 74:150934

REFERENCE 4: 68:75092

REFERENCE 5: 66:103159

L21 ANSWER 11 OF 12 REGISTRY COPYRIGHT 2005 ACS on STN

RN 25667-16-7 REGISTRY

ED Entered STN: 16 Nov 1984

CN Poly[imino[(1S)-1-[(4-hydroxyphenyl)methyl]-2-oxo-1,2-ethanediyl]] (9CI)  
(CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Poly[iminocarbonyl(p-hydroxyphenethylidene)], L- (8CI)

CN Poly[imino[1-[(4-hydroxyphenyl)methyl]-2-oxo-1,2-ethanediyl]], (S)-

OTHER NAMES:

CN L-Tyrosine polymer, SRU

CN Poly(L-tyrosine), SRU

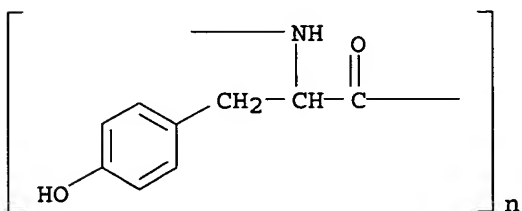
CN Polytyrosine

CN Polytyrosine, SRU



DR 26634-77-5, 439295-29-1  
MF (C9 H9 N O2)n  
CI PMS  
PCT Polyamide  
LC STN Files: BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, EMBASE,  
TOXCENTER, USPAT2, USPATFULL

\*\*RELATED POLYMERS AVAILABLE WITH POLYLINK\*\*



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

192 REFERENCES IN FILE CA (1907 TO DATE)  
22 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
192 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 143:286003

REFERENCE 2: 143:281777

REFERENCE 3: 143:235397

REFERENCE 4: 143:60253

REFERENCE 5: 143:48209

REFERENCE 6: 143:22438

REFERENCE 7: 142:458269

REFERENCE 8: 142:417211

REFERENCE 9: 142:406011

REFERENCE 10: 142:246307

L21 ANSWER 12 OF 12 REGISTRY COPYRIGHT 2005 ACS on STN

RN 25619-78-7 REGISTRY

ED Entered STN: 16 Nov 1984

CN L-Tyrosine, homopolymer (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Tyrosine, L-, peptides (8CI)

OTHER NAMES:

CN L-Tyrosine polymer

CN Poly(L-tyrosine)

CN Polytyrosine

CN Tyrosine homopolymer

FS STEREOSEARCH

MF (C9 H11 N O3)x

CI PMS, COM  
PCT Polyamide, Polyamide formed, Polyester, Polyester formed  
LC STN Files: ADISNEWS, AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA,  
CAPLUS, CHEMCATS, CIN, CSCHM, DIOGENES, EMBASE, IPA, MEDLINE, MSDS-OHS,  
NIOSTIC, PIRA, PROMT, TOXCENTER, TULSA, USPAT2, USPATFULL

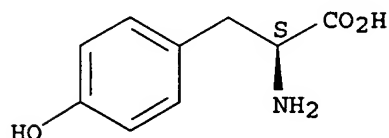
\*\*RELATED POLYMERS AVAILABLE WITH POLYLINK\*\*

CM 1

CRN 60-18-4

CMF C9 H11 N O3

Absolute stereochemistry. Rotation (-).



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

245 REFERENCES IN FILE CA (1907 TO DATE)  
23 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
245 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 143:281777  
REFERENCE 2: 143:235397  
REFERENCE 3: 143:60253  
REFERENCE 4: 143:48209  
REFERENCE 5: 143:22438  
REFERENCE 6: 143:3528  
REFERENCE 7: 142:458269  
REFERENCE 8: 142:417211  
REFERENCE 9: 142:406011  
REFERENCE 10: 142:356632

=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 15:54:41 ON 11 OCT 2005

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FILE COVERS 1907 - 11 Oct 2005 VOL 143 ISS 16  
FILE LAST UPDATED: 10 Oct 2005 (20051010/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all hitstr tot

L23 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 2002:693115 HCAPLUS  
DN 137:221793  
ED Entered STN: 13 Sep 2002  
TI Antiwrinkle cosmetic composition containing a derivative of polyamino acids,  
IN Philippe, Michel; Benard, Sylvie  
PA L'Oreal, Fr.  
SO Eur. Pat. Appl., 13 pp.  
CODEN: EPXXDW  
DT Patent  
LA French  
IC ICM A61K007-48  
CC 62-4 (Essential Oils and Cosmetics)  
Section cross-reference(s): 34  
FAN.CNT 1

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE         |
|------|---|------|----------|-----------------|--------------|
| PI   | EP 1238655  | A1   | 20020911 | EP 2002-290454  | 20020225 <-- |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR |      |          |                 |              |
|      | FR 2821550  | A1   | 20020906 | FR 2001-2979    | 20010305 <-- |
|      | FR 2821550  | B1   | 20040423 |                 |              |
|      | CA 2374147  | AA   | 20020905 | CA 2002-2374147 | 20020304 <-- |
|      | US 2002155991   | A1   | 20021024 | US 2002-86451   | 20020304 <-- |
|      | JP 2002255732   | A2   | 20020911 | JP 2002-59518   | 20020305 <-- |
| PRAI | FR 2001-2979  | A    | 20010305 | <--             |              |

#### CLASS

| PATENT NO.    | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|------------------------------------|
| EP 1238655    | ICM   | A61K007-48                         |
| US 2002155991 | NCL   | 514/002.000                        |

AB Antiwrinkle cosmetics containing polyamino acids are prepared (Markush structure given). N-carboxyanhydride tyrosine 20, sodium methylate in methanol 0.51 g, and THF 200 mL were mixed and heated for 6 h at 60° to obtain a polyamino acid (yield 96%). Formulation of an antiwrinkle cream containing 7% of above polyamino acid is disclosed.  
ST polyamino acid skin wrinkle cosmetic  
IT DNA  
Lactalbumins  
Protein hydrolyzates  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

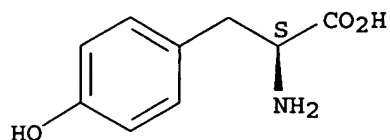
(antiwrinkle cosmetic composition containing derivative of polyamino acids,)  
IT Cosmetics  
(creams, wrinkle-preventing; antiwrinkle cosmetic composition containing  
derivative  
of polyamino acids,)  
IT Polyamides, biological studies  
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological  
study); PREP (Preparation); USES (Uses)  
(poly(amino acids); antiwrinkle cosmetic composition containing derivative  
of  
polyamino acids,)  
IT Proteins  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(soybean; antiwrinkle cosmetic composition containing derivative of  
polyamino  
acids,)  
IT Cosmetics  
(wrinkle-preventing; antiwrinkle cosmetic composition containing derivative  
of  
polyamino acids,)  
IT 462117-51-7P  
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological  
study); PREP (Preparation); USES (Uses)  
(antiwrinkle cosmetic composition containing derivative of polyamino acids)  
IT 457625-03-5P 457625-04-6P 457625-05-7P  
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological  
study); PREP (Preparation); USES (Uses)  
(antiwrinkle cosmetic composition containing derivative of polyamino acids,)  
IT 56-87-1, Lysine, reactions 124-41-4, Sodium methylete 3415-08-5  
5840-76-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(antiwrinkle cosmetic composition containing derivative of polyamino acids,)  
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE  
(1) Bakhoo, M; US 5629282 A 1997 HCAPLUS  
(2) Gibbons, W; GB 2217319 A 1989 HCAPLUS  
(3) Lion Corp; DE 3724460 A 1988 HCAPLUS  
(4) Th Goldschmidt Ag; EP 0958811 A 1999 HCAPLUS  
(5) Th Goldschmidt Ag; EP 0959092 A 1999 HCAPLUS  
(6) Unilever Plc; WO 9937279 A 1999 HCAPLUS  
IT 462117-51-7P  
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological  
study); PREP (Preparation); USES (Uses)  
(antiwrinkle cosmetic composition containing derivative of polyamino acids)  
RN 462117-51-7 HCAPLUS  
CN L-Tyrosine, homopolymer, methyl ester (9CI) (CA INDEX NAME)  
  
CM 1  
  
CRN 67-56-1  
CMF C H4 O  
  
H<sub>3</sub>C-OH  
  
CM 2  
  
CRN 25619-78-7

CMF (C9 H11 N O3)x  
CCI PMS

CM 3

CRN 60-18-4  
CMF C9 H11 N O3

Absolute stereochemistry. Rotation (-).



IT 457625-04-6P 457625-05-7P

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(antiwrinkle cosmetic composition containing derivative of polyamino acids,)

RN 457625-04-6 HCAPLUS

CN L-Tyrosine, polymer with N-methylglycine (9CI) (CA INDEX NAME)

CM 1

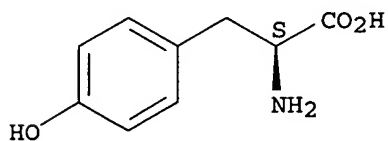
CRN 107-97-1  
CMF C3 H7 N O2

MeNH-CH2-CO2H

CM 2

CRN 60-18-4  
CMF C9 H11 N O3

Absolute stereochemistry. Rotation (-).



RN 457625-05-7 HCAPLUS

CN L-Tyrosine, polymer with L-lysine and N-methylglycine (9CI) (CA INDEX NAME)

CM 1

CRN 107-97-1  
CMF C3 H7 N O2

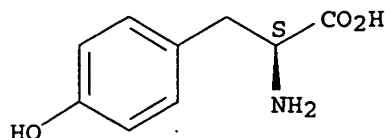
MeNH-CH2-CO2H

CM 2

CRN 60-18-4

CMF C9 H11 N O3

Absolute stereochemistry. Rotation (-).

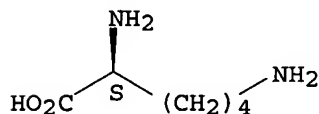


CM 3

CRN 56-87-1

CMF C6 H14 N2 O2

Absolute stereochemistry.



L23 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1995:336742 HCAPLUS  
 DN 122:114632  
 ED Entered STN: 07 Feb 1995  
 TI Preparation of a melanin pigment with a small grain size and its use in cosmetics  
 IN Giacomoni, Paolo; Marrot, Laurent; Mellul, Myriam; Colette, Annick  
 PA Oreal S. A., Fr.  
 SO PCT Int. Appl., 27 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA French  
 IC ICM C09B067-54  
 ICS A61K007-00; A61K007-42; A61K007-13  
 CC 62-4 (Essential Oils and Cosmetics)  
 Section cross-reference(s): 41  
 FAN.CNT 1

|    | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|----|--|------|----------|-----------------|----------|
| PI | WO 9425531   | A1   | 19941110 | WO 1994-FR467   | 19940426 |
|    | W: CA, JP, US  |      |          |                 |          |
|    | RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE |      |          |                 |          |
|    | FR 2704554   | A1   | 19941104 | FR 1993-4960    | 19930427 |
|    | FR 2704554   | B1   | 19950713 |                 |          |
|    | CA 2139115   | AA   | 19941110 | CA 1994-2139115 | 19940426 |
|    | EP 647255  | A1   | 19950412 | EP 1994-914441  | 19940426 |
|    | EP 647255  | B1   | 19991215 |                 |          |
|    | R: DE, ES, FR, GB, IT  |      |          |                 |          |
|    | JP 07508554  | T2   | 19950921 | JP 1994-523952  | 19940426 |

PRAI FR 1993-4960 A 19930427  
 WO 1994-FR467 W 19940426

## CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES                                 |
|------------|-------|--|
| WO 9425531 | ICM   | C09B067-54   |
|            | ICS   | A61K007-00; A61K007-42; A61K007-13                                 |
| WO 9425531 | ECLA  | A61K007/42P10; A61K007/48Z3B; A61K008/41F; A61Q005/10; C09B067/00S |
| FR 2704554 | ECLA  | A61K007/42P10; A61K007/48Z3B; A61K008/41F; A61Q005/10; C09B067/00S |

OS MARPAT 122:114632

AB A melanin pigment is prepared with a very small grain size, 100% of the particles having a grain size <1 µm, for use in cosmetic compns. and in hair dyeing. The process consists in solubilizing a natural or synthetic melanin in an aqueous medium containing ≥1 alkalinizing agent and/or ≥1 sequestering agent and in precipitating the solubilized melanin by adding ≥1 alkaline earth metal salt. Thus, a melanin produced by oxidative polymerization of 5,6-dihydroxyindole was solubilized by stirring in 0.1N NaOH for 24 h and precipitated by adding MgCl<sub>2</sub>. This precipitate (mean particle

size 350 nm) 5 was formulated with ethoxylated laurylsorbitan 1.5, propylene glycol 5.0, poly(vinyl alc.) 20.0, ultramarine 20.0, EtOH 5.0, preservative 5.0, and water to 100.0 g for use as an eye liner.

ST melanin prepn cosmetic; hair dye melanin

IT Hair

Sepiidae

(melanin from; preparation of melanin pigment with small grain size for use in cosmetics)

IT Cosmetics

(preparation of melanin pigment with small grain size for use in cosmetics)

IT Melanins

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of melanin pigment with small grain size for use in cosmetics)

IT Sequestering agents

(solubilizers; preparation of melanin pigment with small grain size for use in cosmetics)

IT Bases, uses

RL: MOA (Modifier or additive use); USES (Uses)

(solubilizers; preparation of melanin pigment with small grain size for use in cosmetics)

IT Hair preparations

(dyes, preparation of melanin pigment with small grain size for use in cosmetics)

IT Cosmetics

(eye liners, preparation of melanin pigment with small grain size for use in cosmetics)

IT Cosmetics

(mascaras, preparation of melanin pigment with small grain size for use in cosmetics)

IT Cosmetics

(nail lacquers, preparation of melanin pigment with small grain size for use in cosmetics)

IT Alkaline earth compounds

RL: TEM (Technical or engineered material use); USES (Uses)

(salts, precipitants; preparation of melanin pigment with small grain size for use in cosmetics)

IT 7786-30-3, Magnesium chloride, uses 10043-52-4, Calcium chloride, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(precipitant; preparation of melanin pigment with small grain size for use in cosmetics)

IT 25619-78-7P, Tyrosine homopolymer 25656-67-1P  
 RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of melanin pigment with small grain size for use in cosmetics)

IT 60-00-4, EDTA, uses 67-43-6, DTPA 71-00-1, Histidine, uses 77-92-9, Citric acid, uses 1310-73-2, Sodium hydroxide, uses 1429-50-1, Ethylenediaminetetramethylenephosphonic acid 160728-82-5  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (solubilizer; preparation of melanin pigment with small grain size for use in cosmetics)

IT 25619-78-7P, Tyrosine homopolymer  
 RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of melanin pigment with small grain size for use in cosmetics)

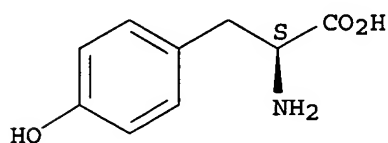
RN 25619-78-7 HCAPLUS  
 CN L-Tyrosine, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 60-18-4

CMF C9 H11 N O3

Absolute stereochemistry. Rotation (-).



L23 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1991:171043 HCAPLUS

DN 114:171043

ED Entered STN: 03 May 1991

TI Cosmetic and pharmaceutical foams

IN Griat, Jacqueline; Ayache, Liliane

PA Oreal S. A., Fr.

SO Eur. Pat. Appl., 10 pp.

CODEN: EPXXDW

DT Patent

LA French

IC ICM A61K007-00

ICS A61K009-127

CC 62-4 (Essential Oils and Cosmetics)

Section cross-reference(s): 63

FAN.CNT 1

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|----|---|------|----------|-----------------|----------|
|    | -----   | ---- | -----    | -----           | -----    |
| PI | EP 382619   | A1   | 19900816 | EP 1990-400307  | 19900205 |
|    | EP 382619   | B1   | 19920506 |                 |          |
|    | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE |      |          |                 |          |
|    | AT 75600  | E    | 19920515 | AT 1990-400307  | 19900205 |
|    | ES 2016788  | T3   | 19930616 | ES 1990-400307  | 19900205 |
|    | US 5171577  | A    | 19921215 | US 1990-474399  | 19900206 |
|    | CA 2009607  | AA   | 19900809 | CA 1990-2009607 | 19900208 |
|    | AU 9049170  | A1   | 19900816 | AU 1990-49170   | 19900208 |



|                    |    |          |               |          |
|--------------------|----|----------|---------------|----------|
| AU 619077          | B2 | 19920116 |               |          |
| JP 03020214        | A2 | 19910129 | JP 1990-28633 | 19900209 |
| PRAI LU 1989-87449 | A  | 19890209 |               |          |
| EP 1990-400307     | A  | 19900205 |               |          |

## CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES  |
|------------|-------|---|
| EP 382619  | ICM   | A61K007-00  |
|            | ICS   | A61K009-127   |
| US 5171577 | NCL   | 424/450.000; 264/004.600; 424/047.000; 424/065.000;<br>424/073.000; 424/076.300; 424/094.300; 424/283.100;<br>424/401.000; 424/405.000; 424/420.000; 424/750.000;<br>424/758.000; 424/764.000; 424/765.000; 424/776.000;<br>514/945.000 |

OS MARPAT 114:171043

AB The title foam comprises a stabilized dispersion of niosomes and a propellant. A niosome dispersion was made of 3-(hexadecyloxy)propane-1,2-diol 3.6, cholesterol 3.6, palmitic acid collagen derivative 0.8, Me p-hydroxybenzoate 0.3, glycerin 3.0, and water 35.5g. Sesame oil 15 and perfume 0.4g was added to the above niosome dispersion, followed by the addition of Carbopol 940 0.4, triethanolamine 0.4, and water 37.0 g. A cosmetic foam contained above composition 70, and a mixture of propellant

containing

butane, propane, isobutane (25:20:55) 30%.

ST pharmaceutical cosmetic foam niosome dispersion

IT Antiperspirants

Astringents

Deodorants

Perfumes and Essences

(cosmetic foams containing)

IT Bactericides, Disinfectants, and Antiseptics

Coloring materials

Fungicides and Fungistats

Oxidizing agents

Reducing agents

Albumins, biological studies

Alcohols, biological studies

Amines, biological studies

Corn oil

Esters, biological studies

Glycols, biological studies

Lipoproteins

Polyamides, biological studies

Polyethers, biological studies

Quaternary ammonium compounds, biological studies

Retinoids

Siloxanes and Silicones, biological studies

Soybean oil

Sunflower oil

RL: BIOL (Biological study)

(cosmetic or pharmaceutical foams containing)

IT Antibiotics

Inflammation inhibitors

Vaccines

Enzymes

Hormones

Vitamins

RL: BIOL (Biological study)

(pharmaceutical foams containing)

IT Alcohols, esters

RL: BIOL (Biological study)  
 (amino, esters, cosmetic or pharmaceutical foams containing)  
 IT Oils, glyceridic  
 RL: BIOL (Biological study)  
 (borage seed, cosmetic or pharmaceutical foams containing)  
 IT Cosmetics  
 (depilatories, foams containing)  
 IT Aldehydes, biological studies  
 RL: BIOL (Biological study)  
 (di-, cosmetic or pharmaceutical foams containing)  
 IT Alcohols, esters  
 RL: BIOL (Biological study)  
 (fatty, esters, cosmetic or pharmaceutical foams containing)  
 IT Amines, compounds  
 RL: BIOL (Biological study)  
 (fatty, ethoxylated, cosmetic or pharmaceutical foams containing)  
 IT Cosmetics  
 Pharmaceutical dosage forms  
 (foams, niosomes in)  
 IT Oils, glyceridic  
 RL: BIOL (Biological study)  
 (grape seed, cosmetic or pharmaceutical foams containing)  
 IT Hair preparations  
 (growth stimulants, foams containing)  
 IT Hydrocarbons, biological studies  
 RL: BIOL (Biological study)  
 (halo, cosmetic or pharmaceutical foams containing)  
 IT Collagens, compounds  
 Gelatins, compounds  
 Lactalbumins  
 RL: BIOL (Biological study)  
 (hydrolyzates, cosmetic or pharmaceutical foams containing)  
 IT Steroids, biological studies  
 RL: BIOL (Biological study)  
 (hydroxy, cosmetic or pharmaceutical foams containing)  
 IT Oils, glyceridic  
 RL: BIOL (Biological study)  
 (macadamia nut, cosmetic or pharmaceutical foams containing)  
 IT Collagens, compounds  
 RL: BIOL (Biological study)  
 (reaction products, with palmitic acid, cosmetic or pharmaceutical  
 foams containing)  
 IT Oils, glyceridic  
 RL: BIOL (Biological study)  
 (sesame, cosmetic or pharmaceutical foams containing)  
 IT Sunburn and Suntan  
 (sunscreens, cosmetic foams containing)  
 IT Sunburn and Suntan  
 (suntanning agents, cosmetic foams containing)  
 IT Lactalbumins  
 RL: BIOL (Biological study)  
 ( $\alpha$ -, cosmetic or pharmaceutical foams containing)  
 IT 50-70-4, D-Glucitol, biological studies 56-81-5, 1,2,3-Propanetriol,  
 biological studies 56-81-5D, 1,2,3-Propanetriol, C6-8 esters 56-82-6,  
 Glyceraldehyde 57-10-3D, Palmitic acid, reaction products with collagens  
 87-89-8, Inositol 96-26-4, Dihydroxy acetone 98-79-3, Pyrrolidone  
 carboxylic acid 98-79-3D, Pyrrolidone carboxylic acid, salts 115-77-5,  
 biological studies 311-89-7, Perfluorotributylamine 6145-69-3  
 7664-38-2D, Phosphoric acid, esters with fatty alcs. 9003-05-8,  
 Polyacrylamide 9004-34-6D, Cellulose, derivs. 21482-16-6 24937-14-2,

Poly( $\beta$ -alanine) 24991-23-9 25104-18-1 25513-34-2,  
 Poly( $\beta$ -alanine) 25513-46-6, Poly(glutamic acid) 25608-40-6,  
 Poly(aspartic acid) 25618-55-7D, dodecyloxyalkyl ethers  
 25619-78-7, Polytyrosine 25667-16-7, Polytyrosine  
 26063-13-8, Poly(aspartic acid) 34361-91-6, Tartraldehyde 38000-06-5  
 40031-31-0, Erythrulose 41672-81-5 129145-57-9

RL: BIOL (Biological study)

(cosmetic or pharmaceutical foams containing)

IT 25619-78-7, Polytyrosine 25667-16-7, Polytyrosine

RL: BIOL (Biological study)

(cosmetic or pharmaceutical foams containing)

RN 25619-78-7 HCAPLUS

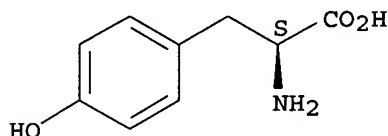
CN L-Tyrosine, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 60-18-4

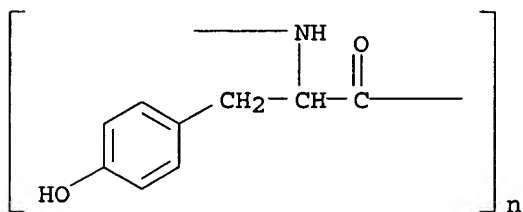
CMF C9 H11 N O3

Absolute stereochemistry. Rotation (-).



RN 25667-16-7 HCAPLUS

CN Poly[imino[(1S)-1-[(4-hydroxyphenyl)methyl]-2-oxo-1,2-ethanediyl]] (9CI)  
 (CA INDEX NAME)



L23 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1986:466280 HCAPLUS

DN 105:66280

ED Entered STN: 23 Aug 1986

TI Cosmetics or pharmaceuticals containing a niosome and at least one water-soluble polyamide

IN Handjani, Rose Marie; Ribier, Alain; Vanlerberghe, Guy; Zabotto, Arlette; Griat, Jacqueline

PA Oreal S. A. , Fr.

SO Ger. Offen., 33 pp.

CODEN: GWXXBX

DT Patent

LA German

ICM A61K009-08

ICS A61K007-00; A61K007-32; A61K007-40; A61K007-46; A61K031-00;  
 A61K031-765; A61K031-785; A61K037-02; A61K037-22; A61K037-48;

A01N025-04

CC 62-6 (Essential Oils and Cosmetics)  
Section cross-reference(s): 63

FAN.CNT 1

|      | PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|------|---------------|------|----------|-----------------|----------|
| PI   | DE 3537723    | A1   | 19860424 | DE 1985-3537723 | 19851023 |
|      | DE 3537723    | C2   | 19890511 |                 |          |
|      | FR 2571963    | A1   | 19860425 | FR 1984-16312   | 19841024 |
|      | FR 2571963    | B1   | 19870710 |                 |          |
|      | US 4830857    | A    | 19890516 | US 1985-789775  | 19851021 |
|      | BE 903509     | A1   | 19860423 | BE 1985-215773  | 19851023 |
|      | AU 8549006    | A1   | 19860515 | AU 1985-49006   | 19851023 |
|      | AU 580805     | B2   | 19890202 |                 |          |
|      | NL 8502901    | A    | 19860516 | NL 1985-2901    | 19851023 |
|      | GB 2166107    | A1   | 19860430 | GB 1985-26284   | 19851024 |
|      | GB 2166107    | B2   | 19880720 |                 |          |
|      | JP 61178909   | A2   | 19860811 | JP 1985-236540  | 19851024 |
|      | JP 04013322   | B4   | 19920309 |                 |          |
|      | ES 548168     | A1   | 19861116 | ES 1985-548168  | 19851024 |
|      | CH 665772     | A    | 19880615 | CH 1985-4586    | 19851024 |
|      | CA 1273870    | A1   | 19900911 | CA 1985-493711  | 19851024 |
| PRAI | FR 1984-16312 | A    | 19841024 |                 |          |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES   |
|------------|-------|--|
| DE 3537723 | ICM   | A61K009-08   |
|            | ICS   | A61K007-00; A61K007-32; A61K007-40; A61K007-46;<br>A61K031-00; A61K031-765; A61K031-785; A61K037-02;<br>A61K037-22; A61K037-48; A01N025-04 |
| US 4830857 | NCL   | 424/450.000; 264/004.100; 264/004.600; 424/417.000;<br>428/402.200   |

AB A composition for cosmetic or pharmaceutical use contains, in an aqueous medium,

2-10 weight% spherules of  $\geq 1$  nonionic amphiphilic lipid and (in the H<sub>2</sub>O phase)  $\geq 1$  H<sub>2</sub>O-soluble polyamide of mol. weight 1000-200,000 at 0.01-10% concentration relative to the total composition weight Thus, dry

skin was

successfully treated in humans by topical application of a composition

containing

an aqueous dispersion of niosomes (10,000 Å diameter; nonionic amphiphilic lipid [R-[OCH<sub>2</sub>CH(CH<sub>2</sub>OH)<sub>n</sub>OH; R = hexadecyl, n = average 3] 3.8, cholesterol 3.8, dicetyl phosphate 0.4, Me p-hydroxybenzoate 0.3, glycerol 3.0, H<sub>2</sub>O 35.5 g), aqueous (20%) poly-β-alanine (mol. weight 50,000) 7 and sesame oil 25 g (to make an oil-in-water emulsion), perfume 0.4, Carbopol 940 0.4, triethanolamine 0.4 and H<sub>2</sub>O (salt-free) 20 g.

ST niosome polyamide compn cosmetic pharmaceutical

IT Albumins, blood serum

Polyamides, biological studies

Protein hydrolyzates

Proteins

RL: BIOL (Biological study)

(cosmetic and pharmaceutical compns. containing niosomes and)

IT Collagens, compounds

Gelatins, compounds

RL: BIOL (Biological study)

(hydrolyzates, cosmetic and pharmaceutical compns. containing niosomes and)

IT Lactalbumins

RL: BIOL (Biological study)

(α-, cosmetic and pharmaceutical compns. containing niosomes and)

IT 9003-05-8 24937-14-2 24991-23-9 25104-18-1 25513-34-2 25513-46-6  
 25608-40-6 25619-78-7 25667-16-7 26063-13-8  
 38000-06-5

RL: BIOL (Biological study)

(cosmetic and pharmaceutical compns. containing niosomes and)

IT 51-35-4 56-81-5, uses and miscellaneous 57-88-5, biological studies  
 25322-68-3D, esters 25618-55-7D, esters

RL: BIOL (Biological study)

(niosomes containing, cosmetic and pharmaceutical compns. containing  
 polyamides  
 and)

IT 25619-78-7 25667-16-7

RL: BIOL (Biological study)

(cosmetic and pharmaceutical compns. containing niosomes and)

RN 25619-78-7 HCAPLUS

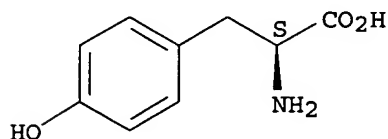
CN L-Tyrosine, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 60-18-4

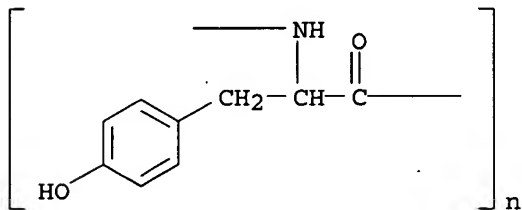
CMF C9 H11 N O3

Absolute stereochemistry. Rotation (-).



RN 25667-16-7 HCAPLUS

CN Poly[imino[(1S)-1-[(4-hydroxyphenyl)methyl]-2-oxo-1,2-ethanediyl]] (9CI)  
 (CA INDEX NAME)



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DICTIONARY FILE UPDATES: 10 OCT 2005 HIGHEST RN 864908-12-3

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\* available and contains the CA role and document type information. \*  
\*  
\*\*\*\*\*

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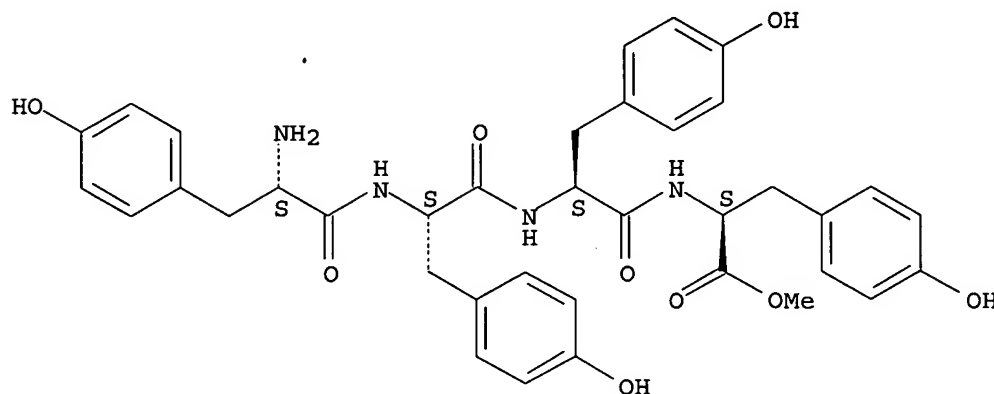
<http://www.cas.org/ONLINE/UG/regprops.html>

=> d ide can tot

L40 ANSWER 1 OF 4 REGISTRY COPYRIGHT 2005 ACS on STN  
RN 801200-00-0 REGISTRY  
ED Entered STN: 22 Dec 2004  
CN Tyrosine, N-[N-(N-L-tyrosyl-L-tyrosyl)-L-tyrosyl]-, methyl ester, L-(8CI) (CA INDEX NAME)  
FS PROTEIN SEQUENCE; STEREOSEARCH  
MF C37 H40 N4 O9  
CI COM  
SR CA

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

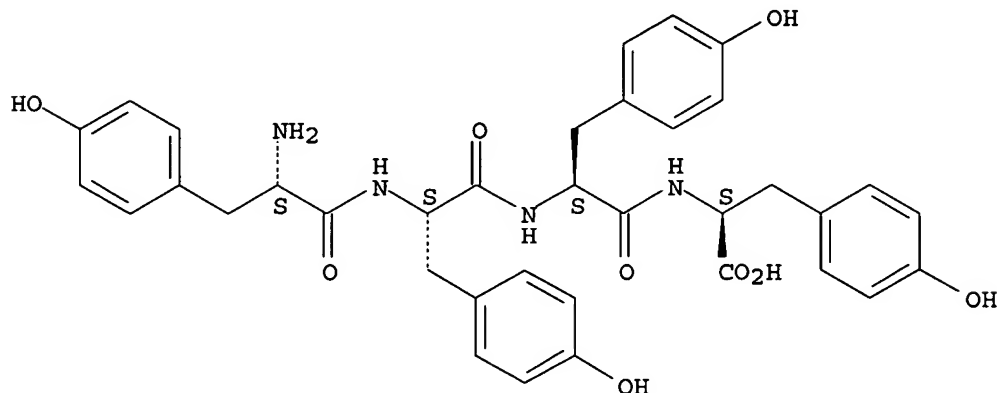
L40 ANSWER 2 OF 4 REGISTRY COPYRIGHT 2005 ACS on STN  
RN 64808-83-9 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN L-Tyrosine, L-tyrosyl-L-tyrosyl-L-tyrosyl- (9CI) (CA INDEX NAME)

## OTHER CA INDEX NAMES:

CN L-Tyrosine, N-[N-(N-L-tyrosyl-L-tyrosyl)-L-tyrosyl]-  
FS PROTEIN SEQUENCE; STEREOSEARCH  
MF C36 H38 N4 O9  
CI COM  
LC STN Files: CA, CAPLUS, USPATFULL

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

4 REFERENCES IN FILE CA (1907 TO DATE)  
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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REFERENCE 2: 129:257340

REFERENCE 3: 118:229754

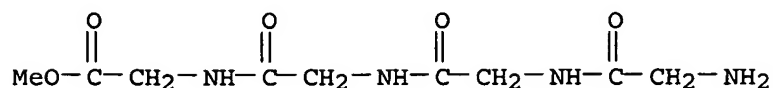
REFERENCE 4: 38:27136

L40 ANSWER 3 OF 4 REGISTRY COPYRIGHT 2005 ACS on STN  
RN 13075-43-9 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN Glycine, glycylglycylglycyl-, methyl ester (7CI, 9CI) (CA INDEX NAME)

## OTHER CA INDEX NAMES:

CN Glycine, N-[N-(N-glycylglycyl)glycyl]-, methyl ester (8CI)  
FS 3D CONCORD; PROTEIN SEQUENCE  
MF C9 H16 N4 O5  
CI COM  
LC STN Files: BEILSTEIN\*, CA, CAOLD, CAPLUS  
(\*File contains numerically searchable property data)

## \*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*



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 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

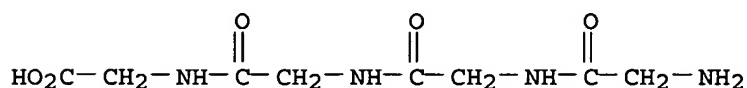
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 REFERENCE 2: 131:322900  
 REFERENCE 3: 129:68017  
 REFERENCE 4: 127:140310  
 REFERENCE 5: 126:343849  
 REFERENCE 6: 79:19229  
 REFERENCE 7: 65:40212  
 REFERENCE 8: 49:64475  
 REFERENCE 9: 46:66800

L40 ANSWER 4 OF 4 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 637-84-3 REGISTRY  
 ED Entered STN: 16 Nov 1984  
 CN **Glycine, glycylglycylglycyl-** (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Glycine, N-[N-(N-glycylglycyl)glycyl]- (6CI, 7CI, 8CI)  
 OTHER NAMES:  
 CN (Triglycyl)glycine  
 CN 10: PN: WO03093478 PAGE: 56 unclaimed sequence  
 CN 134: PN: JP2005002106 SEQID: 82 unclaimed protein  
 CN 1637: PN: WO2004024088 SEQID: 1640 claimed protein  
 CN 188: PN: US20040096926 SEQID: 211 unclaimed sequence  
 CN 1: PN: US20050181447 SEQID: 1 unclaimed sequence  
 CN 21: PN: WO0234909 SEQID: 22 unclaimed protein  
 CN 30: PN: US20030027247 SEQID: 30 unclaimed protein  
 CN 33: PN: FR2860236 PAGE: 10 claimed protein  
 CN 33: PN: US20050085417 SEQID: 33 unclaimed sequence  
 CN 36: PN: WO03087129 SEQID: 37 claimed protein  
 CN 40: PN: FR2860237 SEQID: 28 unclaimed protein  
 CN 4: PN: WO0035952 SEQID: 4 unclaimed protein  
 CN 6: PN: WO02057435 PAGE: 9 unclaimed sequence  
 CN 73: PN: WO2004026329 SEQID: 284 unclaimed protein  
 CN Gly4  
 CN Glycine tetrapeptide  
 CN **Glycylglycylglycylglycine**  
 CN H-Gly-Gly-Gly-Gly-OH



CN NSC 89178  
 CN Tetraglycine  
 FS 3D CONCORD; PROTEIN SEQUENCE  
 DR 115921-30-7  
 MF C8 H14 N4 O5  
 CI COM  
 LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS,  
 BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS,  
 CHEMINFORMRX, CHEMLIST, CSChem, DETHERM\*, EMBASE, GMELIN\*, IFICDB,  
 IFIPAT, IFIUDB, MEDLINE, NIOSHTIC, TOXCENTER, USPAT2, USPATFULL  
 (\*File contains numerically searchable property data)  
 Other Sources: EINECS\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

580 REFERENCES IN FILE CA (1907 TO DATE)  
 64 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 580 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
 34 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 143:222558  
 REFERENCE 2: 143:173125  
 REFERENCE 3: 142:417150  
 REFERENCE 4: 142:409953  
 REFERENCE 5: 142:349061  
 REFERENCE 6: 142:349018  
 REFERENCE 7: 142:329887  
 REFERENCE 8: 142:296757  
 REFERENCE 9: 142:240703  
 REFERENCE 10: 142:238639

=> => d ide can tot

L43 ANSWER 1 OF 5 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 134982-28-8 REGISTRY  
 ED Entered STN: 19 Jul 1991  
 CN Glycine, N-[N-(N-glycylglycyl)glycyl]-, mono(trifluoroacetate) (9CI) (CA  
 INDEX NAME)  
 FS PROTEIN SEQUENCE  
 MF C8 H14 N4 O5 . C2 H F3 O2

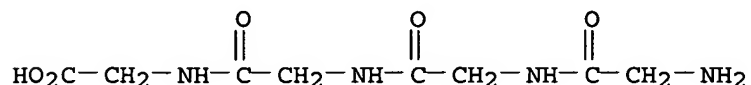
SR CA  
LC STN Files: BEILSTEIN\*, CA, CAPLUS, CASREACT  
(\*File contains numerically searchable property data)

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

CM 1

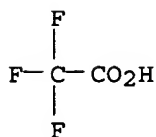
CRN 637-84-3  
CMF C8 H14 N4 O5

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*



CM 2

CRN 76-05-1  
CMF C2 H F3 O2



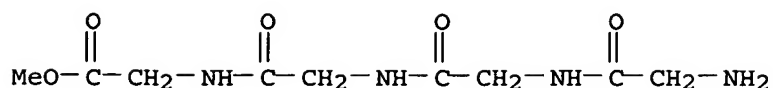
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 115:92885

L43 ANSWER 2 OF 5 REGISTRY COPYRIGHT 2005 ACS on STN  
RN 84015-45-2 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN Glycine, glycylglycylglycyl-, methyl ester, monohydrochloride (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Glycine, N-[N-(N-glycylglycyl)glycyl]-, methyl ester, monohydrochloride  
FS PROTEIN SEQUENCE  
MF C9 H16 N4 O5 . Cl H  
LC STN Files: BEILSTEIN\*, CA, CAPLUS  
(\*File contains numerically searchable property data)  
CRN (13075-43-9)

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*



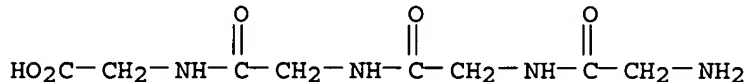
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1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 98:34937

L43 ANSWER 3 OF 5 REGISTRY COPYRIGHT 2005 ACS on STN  
RN 38495-13-5 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN Glycine, N-[N-(N-glycylglycyl)glycyl]-, hydrochloride (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN Tetraglycine hydrochloride  
FS PROTEIN SEQUENCE  
MF C8 H14 N4 O5 . x Cl H  
LC STN Files: CA, CAPLUS  
CRN (637-84-3)

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*



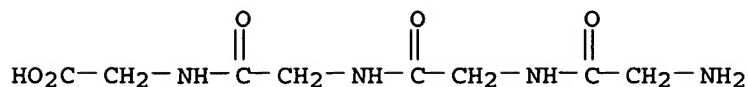
●x HCl

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 77:148820

L43 ANSWER 4 OF 5 REGISTRY COPYRIGHT 2005 ACS on STN  
RN 38126-71-5 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN Glycine, N-[N-(N-glycylglycyl)glycyl]-, monohydrochloride (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN Tetraglycine hydrochloride  
FS PROTEIN SEQUENCE  
MF C8 H14 N4 O5 . Cl H  
LC STN Files: CA, CAPLUS  
CRN (637-84-3)

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*



● HCl

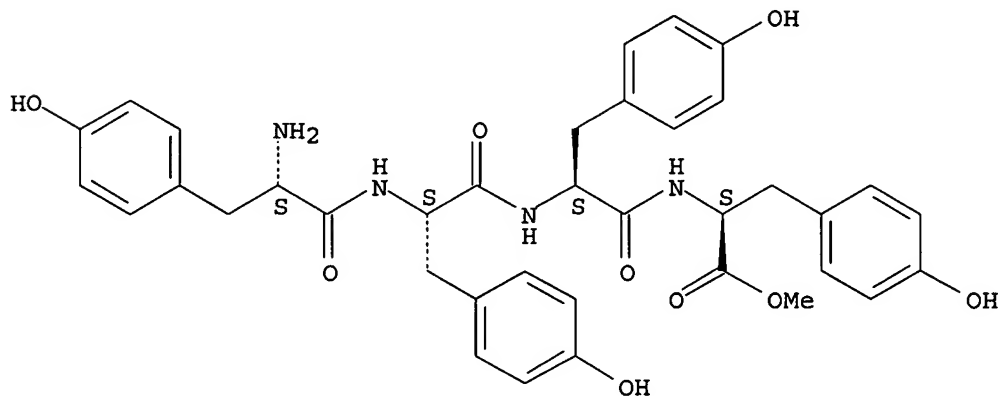
1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 77:152548

L43 ANSWER 5 OF 5 REGISTRY COPYRIGHT 2005 ACS on STN  
RN 27538-63-2 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN Tyrosine, N-[N-(N-L-tyrosyl-L-tyrosyl)-L-tyrosyl]-, methyl ester,  
monohydrochloride, L- (8CI) (CA INDEX NAME)  
FS PROTEIN SEQUENCE; STEREOSEARCH  
MF C37 H40 N4 O9 . Cl H  
LC STN Files: CA, CAPLUS  
CRN (801200-00-0)

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

Absolute stereochemistry.



● HCl

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 73:15215

=> => fil hcaplus  
FILE 'HCAPLUS' ENTERED AT 16:09:30 ON 11 OCT 2005  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

jan delaval - 11 october 2005

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FILE COVERS 1907 - 11 Oct 2005 VOL 143 ISS 16  
 FILE LAST UPDATED: 10 Oct 2005 (20051010/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

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L55 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1998:389084 HCAPLUS  
 DN 129:58620  
 ED Entered STN: 25 Jun 1998  
 TI Dentifrice compositions containing peptides as endotoxin neutralizing agents  
 IN Sasaki, Shuji  
 PA Lion Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM A61K007-16  
 CC 62-7 (Essential Oils and Cosmetics)  
 Section cross-reference(s): 63

FAN.CNT 1

|      | PATENT NO.     | KIND | DATE     | APPLICATION NO. | DATE     |
|------|----------------|------|----------|-----------------|----------|
| PI   | JP 10158131    | A2   | 19980616 | JP 1996-330350  | 19961126 |
| PRAI | JP 1996-330350 |      | 19961126 |                 |          |

CLASS

| PATENT NO.  | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|-------------|-------|------------------------------------|
| JP 10158131 | ICM   | A61K007-16                         |

AB The compns. contain amino acids or di, tri-, or tetrapeptides comprising Gly, Ala, Leu, His, and/or Pro as neutralizing agents for endotoxins of periodontal disease bacteria. The compns. are used in the forms of toothpastes, mouthwashes, confectioneries such as candies, chewing gums, etc. L-Leucylglycylglycine (I) showed 50.9% inhibition against Actinobacillus actinomycetemcomitans Y4 LPS. A toothpaste containing I was also formulated.

ST dentifrice glycine peptide Actinomycetes endotoxin neutralizer;  
 oligopeptide periodontal disease endotoxin neutralizer dentifrice;  
 Porphyromonas endotoxin neutralizer oligopeptide dentifrice

IT Chewing gum  
 (anticariogenic dentifrices; dentifrices containing specific amino acids or

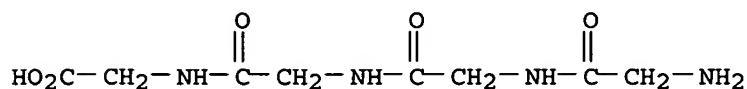
- oligopeptides as neutralizing agents for periodontal disease bacteria endotoxins)
- IT Candy
- Mouthwashes**
- Mouthwashes**  
(anticariogenic; dentifrices containing specific amino acids or oligopeptides as neutralizing agents for periodontal disease bacteria endotoxins)
- IT **Dentifrices**
- Dentifrices**  
(chewing gums, anticariogenic; dentifrices containing specific amino acids or oligopeptides as neutralizing agents for periodontal disease bacteria endotoxins)
- IT Antibacterial agents
- Dentifrices**  
Haemophilus actinomycetemcomitans  
Porphyromonas gingivalis  
(dentifrices containing specific amino acids or oligopeptides as neutralizing agents for periodontal disease bacteria endotoxins)
- IT Amino acids, biological studies
- RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(dentifrices containing specific amino acids or oligopeptides as neutralizing agents for periodontal disease bacteria endotoxins)
- IT Chewing gum
- (dentifrices, anticariogenic; dentifrices containing specific amino acids or oligopeptides as neutralizing agents for periodontal disease bacteria endotoxins)
- IT Periodontium
- (disease; dentifrices containing specific amino acids or oligopeptides as neutralizing agents for periodontal disease bacteria endotoxins)
- IT Toxins
- RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
(endotoxins; dentifrices containing specific amino acids or oligopeptides as neutralizing agents for periodontal disease bacteria endotoxins)
- IT Drug delivery systems
- (ointments, oral; dentifrices containing specific amino acids or oligopeptides as neutralizing agents for periodontal disease bacteria endotoxins)
- IT Peptides, biological studies
- RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(oligopeptides; dentifrices containing specific amino acids or oligopeptides as neutralizing agents for periodontal disease bacteria endotoxins)
- IT 61-90-5, L-Leucine, biological studies 71-00-1, L-Histidine, biological studies 556-50-3, Glycylglycine 637-84-3, Glycylglycylglycylglycine 686-50-0, L-Leucylglycine 704-15-4, Glycyl-L-proline 869-19-2, Glycyl-L-leucine 1187-50-4, L-Leucylglycylglycine 2867-20-1, DL-Alanyl-DL-alanine 7298-84-2, L-Leucyl-L-alanine 7451-76-5, Glycylglycyl-L-histidine 7763-65-7, L-Histidyl-L-leucine
- RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(dentifrices containing specific amino acids or oligopeptides as neutralizing agents for periodontal disease bacteria endotoxins)
- IT 637-84-3, Glycylglycylglycylglycine

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(dentifrices containing specific amino acids or oligopeptides as neutralizing agents for periodontal disease bacteria endotoxins)

RN 637-84-3 HCAPLUS

CN Glycine, glycylglycylglycyl- (9CI) (CA INDEX NAME)



L55 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1995:686891 HCAPLUS

DN 123:93387

ED Entered STN: 20 Jul 1995

TI Peptides as antibacterial agents

IN Bhakoo, Manmohan

PA Unilever PLC, UK; Unilever N. V.

SO PCT Int. Appl., 31 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K031-785

ICS C08G069-10

CC 63-8 (Pharmaceuticals)

Section cross-reference(s): 17, 62

FAN.CNT 1

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|------|---|------|----------|-----------------|----------|
| PI   | WO 9509638  | A1   | 19950413 | WO 1994-EP3234  | 19940928 |
|      | W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, UZ, VN |      |          |                 |          |
|      | RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG  |      |          |                 |          |
|      | CA 2169084  | AA   | 19950413 | CA 1994-2169084 | 19940928 |
|      | AU 9478106  | A1   | 19950501 | AU 1994-78106   | 19940928 |
|      | AU 695290   | B2   | 19980813 |                 |          |
|      | EP 722327   | A1   | 19960724 | EP 1994-928834  | 19940928 |
|      | EP 722327   | B1   | 20001122 |                 |          |
|      | R: CH, DE, ES, FR, GB, IT, LI, NL, SE   |      |          |                 |          |
|      | HU 74379  | A2   | 19961230 | HU 1996-873     | 19940928 |
|      | BR 9407770  | A    | 19970318 | BR 1994-7770    | 19940928 |
|      | JP 09503216   | T2   | 19970331 | JP 1994-510597  | 19940928 |
|      | ES 2153861  | T3   | 20010316 | ES 1994-928834  | 19940928 |
|      | JP 3162078  | B2   | 20010425 | JP 1995-510597  | 19940928 |
|      | US 5629282  | A    | 19970513 | US 1994-317275  | 19941004 |
|      | ZA 9407788  | A    | 19960409 | ZA 1994-7788    | 19941005 |
| PRAI | GB 1993-20443   | A    | 19931005 |                 |          |
|      | GB 1993-25839   | A    | 19931217 |                 |          |
|      | WO 1994-EP3234  | W    | 19940928 |                 |          |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
| WO 9509638 | ICM   | A61K031-785                        |

ICS C08G069-10  
 WO 9509638 ECLA A61K031/785; C08G069/10  
 US 5629282 NCL 514/002.000; 134/025.300; 422/032.000; 424/054.000;  
 426/335.000; 426/532.000; 528/328.000; 530/300.000;  
 530/350.000

AB Antibacterial agents are identified as peptides having a mol. weight  
 ≥5 kD, comprising ≥15% by number of residues of arginine,  
 lysine, ornithine or a mixture thereof and ≥15% by number of residues of  
 arginine, lysine, ornithine, phenylalanine, tyrosine, tryptophan or a  
 mixture thereof. Although the invention is described with reference to use in  
 the fields of food and oral hygiene, the invention has particular utility  
 in the field of household and/or industrial hygiene. Antibacterial  
 compns. further contain nonionic surfactants. For example, an  
 antibacterial activity of Arg-Trp copolymer (31kD) was tested with  
 Staphylococcus aureus, Escherichia coli, and Pseudomonas aeruginosa.

ST peptide surfactant bactericide  
 IT Bactericides, Disinfectants, and Antiseptics  
 Food  
 Surfactants  
 (antibacterial compns. containing peptides and surfactants)

IT Peptides, biological studies  
 RL: BUU (Biological use, unclassified); FFD (Food or feed use); NUU (Other  
 use, unclassified); BIOL (Biological study); USES (Uses)  
 (antibacterial compns. containing peptides and surfactants)

IT 151-21-3, Sodium dodecyl sulfate, biological studies 9005-65-6, Tween 80  
 9083-53-8, Triton 24937-47-1, Polyarginine 24937-49-3, Polyornithine  
 25104-12-5, Polyornithine 25104-18-1, Polylysine 25191-13-3,  
 Polyproline 25212-18-4, Polyarginine 25213-33-6, Polyproline  
 25619-78-7, Polytyrosine 25667-16-7, Polytyrosine  
 25821-52-7, Polyserine 25821-94-7, Polyserine 26062-48-6,  
 Polyhistidine 26700-39-0 26701-37-1 26854-81-9, Polyhistidine  
 27456-64-0 27813-82-7, Polytryptophan 29796-29-0 29861-38-9  
 30425-11-7 31325-38-9 31325-39-0 33540-31-7, Polytryptophan  
 38000-06-5, Polylysine 107408-09-3 108820-26-4 131601-01-9  
 165123-98-8 165123-99-9 165305-40-8 165455-84-5  
 RL: BUU (Biological use, unclassified); FFD (Food or feed use); NUU (Other  
 use, unclassified); BIOL (Biological study); USES (Uses)  
 (antibacterial compns. containing peptides and surfactants)

IT 25619-78-7, Polytyrosine 25667-16-7, Polytyrosine  
 RL: BUU (Biological use, unclassified); FFD (Food or feed use); NUU (Other  
 use, unclassified); BIOL (Biological study); USES (Uses)  
 (antibacterial compns. containing peptides and surfactants)

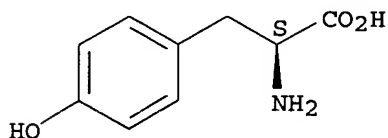
RN 25619-78-7 HCAPLUS  
 CN L-Tyrosine, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 60-18-4

CMF C9 H11 N O3

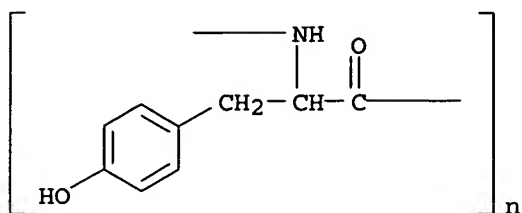
Absolute stereochemistry. Rotation (-).



RN 25667-16-7 HCAPLUS



CN Poly[imino[(1S)-1-[(4-hydroxyphenyl)methyl]-2-oxo-1,2-ethanediyl]] (9CI)  
(CA INDEX NAME)



L55 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 1994:23568 HCAPLUS  
DN 120:23568  
ED Entered STN: 22 Jan 1994  
TI Remedy for dermatopathy and metallothionein induction  
IN Otsu, Yoshiro; Arima, Yaeno; Nakajima, Katsuyuki; Adachi, Masakazu;  
Muramatsu, Tsutomu; Hanada, Katsumi  
PA Otsuka Pharmaceutical Co., Ltd., Japan; Japan Immunoresearch Laboratories  
Co., Ltd.  
SO PCT Int. Appl., 66 pp.  
CODEN: PIXXD2  
DT Patent  
LA Japanese  
IC ICM A61K031-12  
ICS A61K031-19; A61K031-195; A61K031-44; A61K037-02  
CC 1-12 (Pharmacology)  
Section cross-reference(s): 27, 62, 63  
FAN.CNT 1

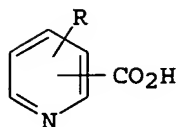
|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|------|---|------|----------|-----------------|----------|
| PI   | WO 9314748  | A1   | 19930805 | WO 1993-JP130   | 19930203 |
|      | W: AU, CA, JP, KR, US   |      |          |                 |          |
|      | RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE    |      |          |                 |          |
|      | CA 2107461  | AA   | 19930804 | CA 1993-2107461 | 19930203 |
|      | AU 9334629  | A1   | 19930901 | AU 1993-34629   | 19930203 |
|      | AU 667704   | B2   | 19960404 |                 |          |
|      | EP 583479   | A1   | 19940223 | EP 1993-903301  | 19930203 |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE |      |          |                 |          |
|      | US 5582817  | A    | 19961210 | US 1993-122585  | 19931001 |
| PRAI | JP 1992-17612   | A    | 19920203 |                 |          |
|      | JP 1992-113633  | A    | 19920506 |                 |          |
|      | JP 1992-325633  | A    | 19921204 |                 |          |
|      | JP 1992-348618  | A    | 19921228 |                 |          |
|      | WO 1993-JP130   | A    | 19930203 |                 |          |

## CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES   |
|------------|-------|--|
| WO 9314748 | ICM   | A61K031-12   |
|            | ICS   | A61K031-19; A61K031-195; A61K031-44; A61K037-02  |
| AU 9334629 | ECLA  | A61K008/26; A61K008/35; A61K008/368; A61K008/44;<br>A61K008/49C4; A61K008/64; A61K008/67F3; A61K031/315;<br>A61K031/40; A61K031/405; A61K031/415; A61K031/44;<br>A61K038/04; A61K038/06A; A61Q017/04; A61Q019/00 |
| EP 583479  | ECLA  | A61K008/26; A61K008/35; A61K008/368; A61K008/44;<br>A61K008/49C4; A61K008/64; A61K008/67F3; A61K031/315;   |

US 5582817 NCL A61K031/40; A61K031/405; A61K031/415; A61K031/44;  
 ECLA A61K038/04; A61K038/06A; A61Q017/04; A61Q019/00  
 424/059.000; 514/188.000; 514/494.000; 546/005.000  
 A61K008/26; A61K008/35; A61K008/368; A61K008/44;  
 A61K008/49C4; A61K008/64; A61K008/67F3; A61K031/315;  
 A61K031/40; A61K031/405; A61K031/415; A61K031/44;  
 A61K038/04; A61K038/06A; A61Q017/04; A61Q019/00

OS MARPAT 120:23568  
 GI



AB A zinc salt, a zinc complex or a zinc complex salt of a compound selected from among a pyridine-carboxylic acid represented by general formula (I) (R = H, OH, nitro, halo, etc.), nicotinamide, picolinamide, 3,4-dihydroxybenzoic acid, an amino acid, a peptide and hinokitiol has the effects of inducing metallothionein and inhibiting sunburn cell production, thus being useful as a **cosmetic** or medicine for treating or preventing sunburn and treating dermatopathy, radiation damage, etc. Bis(2,5-pyridinedicarboxylate)zinc(II) di-Na salt (II) was prepared by treating 2,5-pyridinedicarboxylic acid with Na<sub>2</sub>CO<sub>3</sub> and zinc acetate. II (1% solution) applied topically to UV-irradiated hairless mice prevented the UV radiation damage. Pharmaceutical and **cosmetic** formulation are given.

ST zinc pyridinecarboxylate dermatopathy treatment; radiation damage control  
 zinc pyridinecarboxylate; sunburn treatment zinc pyridinecarboxylate

IT Radiation  
 (damage by, treatment of, with zinc pyridinecarboxylate or other zinc compds., metallothionein induction in relation to)

IT Metallothioneins  
 RL: PRP (Properties)  
 (induction of, with zinc pyridinecarboxylate or other zinc compds.)

IT Skin, disease  
 Sunburn and Suntan  
 (treatment of, with zinc pyridinecarboxylate or other zinc compds., metallothionein induction in relation to)

IT **Sunscreens**  
 (zinc pyridinecarboxylate or zinc compds. as)

IT Peptides, biological studies  
 RL: BIOL (Biological study)  
 (zinc salts, as metallothionein inducers and sunburn inhibitors)

IT Pharmaceutical dosage forms  
 (ointments, of zinc compds., for dermatopathy)

IT Pharmaceutical dosage forms  
 (tablets, of zinc compds., for dermatopathy)

IT Amino acids, compounds  
 RL: BIOL (Biological study)  
 (zinc salts, as metallothionein inducers and sunburn inhibitors)

IT 52-90-4D, L-Cysteine, zinc complexes 70-18-8D, zinc complexes  
 72-19-5D, L-Threonine, zinc complexes 80-68-2D, DL-Threonine, zinc complexes  
 305-84-0D, zinc complexes 556-33-2D, zinc complexes  
 556-50-3D, zinc complexes 632-20-2D, D-Threonine, zinc complexes  
 637-84-3D, zinc complexes 921-01-7D, D-Cysteine, zinc complexes

1187-50-4D, zinc complexes 3146-40-5D, zinc complexes 3374-22-9D,  
 DL-Cysteine, zinc complexes 4294-25-1D, zinc complexes 7440-66-6D,  
 Zinc, complexes with amino acids and peptides 14221-52-4 14281-83-5  
 14647-06-4 14877-93-1 15276-22-9 15281-32-0 15523-09-8  
 15740-03-1 15975-28-7 16037-56-2 16561-87-8 21752-10-3  
 23333-98-4 23333-99-5 28143-32-0 31034-38-5 32594-06-2  
 32594-07-3 34992-53-5 36393-20-1 40816-51-1 40816-53-3  
 51147-98-9 53446-41-6 64364-41-6 68107-75-5 75598-18-4  
 77340-82-0 77448-68-1 77519-24-5 102519-27-7 112983-87-6  
 138641-21-1 151110-84-8 151138-11-3 151138-13-5 151138-14-6  
 151138-15-7 151138-16-8 151138-17-9 151165-54-7 151165-55-8  
 151214-06-1 151214-07-2 151214-08-3 151214-09-4 151214-27-6  
 151214-86-7 151214-87-8 151214-88-9 151214-89-0 151214-90-3  
 151214-91-4 151214-92-5 151214-93-6 151214-94-7 151214-95-8  
 151214-96-9 151214-97-0 152005-29-3

RL: BIOL (Biological study)

(as metallothionein inducer and sunburn inhibitor)

IT 98-92-0D, Nicotinamide, compds. 99-50-3D, 3,4-Dihydroxybenzoic acid,  
 compds. 499-44-5D, compds. 1452-77-3D, Picolinamide, compds.  
 7440-66-6D, Zinc, compds. 32075-31-3D, Pyridinecarboxylic acid, compds.

RL: BIOL (Biological study)

(as metallothionein inducers and sunburn inhibitors)

IT 3473-03-8P 17949-65-4P 151041-61-1P 151282-38-1P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, as metallothionein inducer and sunburn inhibitor)

IT 51914-60-4P, Zinc nicotinate 151041-62-2P 151165-56-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, as sunburn inhibitor and metallothionein inducer)

IT 59-67-6, Nicotinic acid, reactions 71-00-1, L-Histidine, reactions  
 98-92-0, Nicotinamide 99-50-3, 3,4-Dihydroxybenzoic acid 100-26-5,  
 2,5-Pyridinedicarboxylic acid 1452-77-3, Picolinamide

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, for sunburn inhibitor and metallothionein inducer preparation)

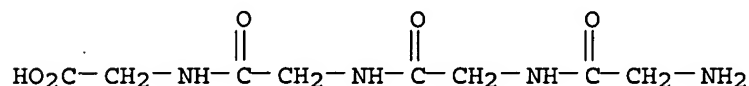
IT 637-84-3D, zinc complexes

RL: BIOL (Biological study)

(as metallothionein inducer and sunburn inhibitor)

RN 637-84-3 HCAPLUS

CN Glycine, glycylglycylglycyl- (9CI) (CA INDEX NAME)



L55 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1992:433430 HCAPLUS

DN 117:33430

ED Entered STN: 26 Jul 1992

TI Peptide-modified silicones as cosmetic ingredients

IN Yoshioka, Masato; Kamimura, Yoichi

PA Seiwa Oil and Chemetics Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 19 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM A61K007-00

ICS A61K007-06

CC 62-4 (Essential Oils and Cosmetics)

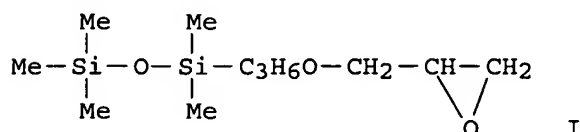
FAN.CNT 1

|      | PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|------|---------------|------|----------|-----------------|----------|
|      | -----         | ---- | -----    | -----           | -----    |
| PI   | JP 03223207   | A2   | 19911002 | JP 1990-19939   | 19900129 |
|      | JP 2748174    | B2   | 19980506 |                 |          |
| PRAI | JP 1990-19939 |      | 19900129 |                 |          |

CLASS

| PATENT NO.  | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|-------------|-------|------------------------------------|
| JP 03223207 | ICM   | A61K007-00                         |
|             | ICS   | A61K007-06                         |

GI



AB Bases for manufacturing skin on hair preps. contain peptide-modified silicone derivs. to smoothen the skin and to soften and luster the hair. Thus, collagen peptide (mol. weight .apprx.3000) was reacted with I to give the product. A base for manufacturing skin and hair preps. contained the above product 2.0, keratin hydrolyzate 3.0, polyoxyethylene lauryl ether 1.0, 99% EtOH 8%, perfumes q.s., and balance sterilized water.

ST base cosmetic peptide silicone; skin cosmetic base peptide silicone; hair prepn base peptide silicone

IT      **Cosmetics**

## Hair preparations

## Shampoos

(bases for, peptide-modified silicone-containing)

IT      Cosmetics

(creams, bases for, peptide-modified silicone-containing)

IT Cosmetics

(depilatories, bases for, peptide-modified silicone-containing)

IT Cosmetics

(face masks, bases for, peptide-modified silicone-containing)

IT Collagens, compounds

RL: PREP (Preparation)

(hydrolyzates, reaction products, with silicones, preparation of, as bases for hair preps. and skin cosmetics)

IT Siloxanes and Silicones, compounds

RL: PREP (Preparation)

(reaction products, with peptides, preparation of, as bases for hair prepn.s. and skin cosmetics)

IT Peptides, compounds

RL: PREP (Preparation)

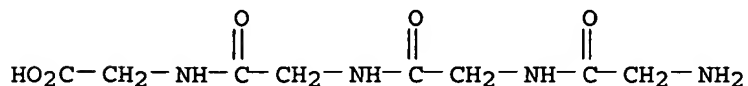
(reaction products, with silicones, preparation of, as bases for hair  
prepn. and skin cosmetics)

IT Hair preparations

(wave-setting, bases for, peptide-modified silicone-containing)

IT 56-45-1DP, Serine, reaction products with silicones 56-89-3DP, Cystine,  
reaction products with silicones 74-79-3DP, Arginine, reaction products  
with silicones 147-85-3DP, Proline, reaction products with silicones  
**637-84-3DP**, Glycylglycylglycylglycine, reaction products with  
silicones 138965-24-9DP, reaction products with peptides  
RL: PREP (Preparation)

(preparation of, as bases for hair preps. and skin cosmetics)  
 IT 637-84-3DP, Glycylglycylglycylglycine, reaction products with  
 silicones  
 RL: PREP (Preparation)  
 (preparation of, as bases for hair preps. and skin cosmetics)  
 RN 637-84-3 HCAPLUS  
 CN Glycine, glycylglycylglycyl- (9CI) (CA INDEX NAME)



L55 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1982:148999 HCAPLUS  
 DN 96:148999  
 ED Entered STN: 12 May 1984  
 TI Sulfonated polyamino acids as dental plaque barriers  
 IN Sipos, Tibor  
 PA Johnson and Johnson Products, Inc., USA  
 SO U.S., 5 pp.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 IC A61K007-16; C07C103-52  
 INCL 424056000  
 CC 62-7 (Essential Oils and Cosmetics)  
 FAN.CNT 1

|      | PATENT NO.                | KIND | DATE     | APPLICATION NO. | DATE     |
|------|---------------------------|------|----------|-----------------|----------|
| PI   | US 4314991                | A    | 19820209 | US 1980-172353  | 19800725 |
|      | ZA 8107824                | A    | 19830629 | ZA 1981-7824    | 19811111 |
|      | EP 79406                  | A1   | 19830525 | EP 1981-305367  | 19811112 |
|      | R: AT, CH, DE, GB, IT, LI |      |          |                 |          |
|      | CA 1176795                | A1   | 19841023 | CA 1981-389866  | 19811112 |
|      | JP 58093725               | A2   | 19830603 | JP 1981-189392  | 19811127 |
| PRAI | US 1980-172353            |      | 19800725 |                 |          |

## CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES                              |
|------------|-------|---|
| US 4314991 | IC    | A61K007-16IC C07C103-52   |
|            | INCL  | 424056000   |
| US 4314991 | NCL   | 424/056.000; 530/324.000; 530/350.000; 930/021.000; 930/290.000 |

AB Sulfonated polyamino acids or their salts are useful for preventing the attachment of dental plaque to the teeth surface and can be applied using dentifrices, mouthwashes or other formulations. Thus poly(L-phenylalanine)sulfonic acid was prepared by the treatment of poly(L-phenylalanine) with liquid SO<sub>3</sub> dissolved in a solution of tri-Et phosphate in CH<sub>2</sub>Cl<sub>2</sub>. This was then converted to the Na salt. The degree of sulfonation was 0.8 based on the amount of alkali consumed in the neutralization step. Mouthwashes and dentifrices are prepared containing polyamino acid sulfonates.

ST polyamino acid sulfonate dental plaque

IT Polyamides, compounds  
 RL: BIOL (Biological study)  
 (Ph group-containing, sulfonated, salts, dental plaque barriers, for dentifrices and mouthwashes)

IT Chewing gum  
 Dentifrices  
 Mouthwashes  
 (polyamino acid sulfonates as dental plaque barriers for)

IT Amino acids, polymers  
 RL: BIOL (Biological study)  
 (polymers, sulfonated, salts, dental plaque barriers, for dentifrices and mouthwashes)

IT 25035-14-7D, sulfonated, salts 25191-15-5D, sulfonated, salts  
 25248-59-3D, sulfonated, salts 25619-78-7D, sulfonated, salts  
 25667-16-7D, sulfonated, salts 30394-07-1D, sulfonated, salts  
 RL: BIOL (Biological study)  
 (dental plaque barrier agent, for dentifrices and mouthwashes)

IT 25619-78-7D, sulfonated, salts 25667-16-7D, sulfonated, salts  
 RL: BIOL (Biological study)  
 (dental plaque barrier agent, for dentifrices and mouthwashes)

RN 25619-78-7 HCAPLUS

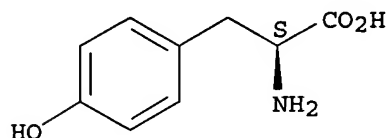
CN L-Tyrosine, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 60-18-4

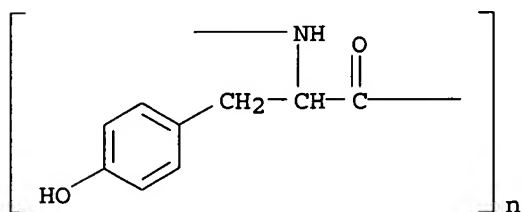
CMF C9 H11 N O3

Absolute stereochemistry. Rotation (-).



RN 25667-16-7 HCAPLUS

CN Poly[imino[(1S)-1-[(4-hydroxyphenyl)methyl]-2-oxo-1,2-ethanediyl]] (9CI)  
 (CA INDEX NAME)



=> d his

(FILE 'HOME' ENTERED AT 15:33:42 ON 11 OCT 2005)  
 SET COST OFF

FILE 'HCAPLUS' ENTERED AT 15:33:52 ON 11 OCT 2005

L1 1 S US20020155991/PN OR (US2002-086451# OR FR2001-2979)/AP,PRN  
 E PHILIPPE M/AU

L2 326 S E3-E5,E25-E27

jan delaval - 11 october 2005

E PHILIPPE M/AU  
E PHILLIPPE M/AU  
L3 14 S E3-E5,E8  
E PHILLIPE M/AU  
E BENARD S/AU  
L4 15 S E3,E7  
L5 4933 S (OREAL? OR LOREAL? OR L()OREAL?)/PA,CS  
SEL RN L1

FILE 'REGISTRY' ENTERED AT 15:36:07 ON 11 OCT 2005  
L6 8 S E1-E8  
SEL RN 5-8  
L7 4 S L6 NOT E9-E12  
L8 3 S (D-TYROSINE OR L-TYROSINE OR DL-TYROSINE)/CN  
SEL RN  
L9 335 S E13-E15/CRN  
L10 146 S L9 AND PMS/CI  
L11 1 S L10 AND CH4O  
L12 43 S C3H7NO2 AND L10  
L13 2 S L12 NOT ALANINE  
L14 4 S L10 AND C2H5NO2  
L15 6 S L10 AND C9H11NO3 AND 1/NC  
L16 43 S L10 AND 2/NC  
L17 54 S L10 NOT L11-L16  
E (C9H9NO2)/MF  
L18 17 S E5  
SEL RN 14 15 17  
L19 3 S E1-E3  
E (C9H9NO2)/MF  
L20 2 S E6,E7  
L21 12 S L11,L13,L15,L19

FILE 'HCAPLUS' ENTERED AT 15:53:55 ON 11 OCT 2005  
L22 265 S L21  
L23 4 S L22 AND L1-L5

FILE 'REGISTRY' ENTERED AT 15:54:33 ON 11 OCT 2005

FILE 'HCAPLUS' ENTERED AT 15:54:41 ON 11 OCT 2005  
SEL RN L23

FILE 'REGISTRY' ENTERED AT 15:55:16 ON 11 OCT 2005  
L24 42 S E1-E50 NOT L6  
L25 40 S L24 NOT L21  
E C8H14N4O5/MF  
L26 66 S E3  
E C9H16N4O5/MF  
L27 59 S E3  
L28 125 S L26,L27  
L29 61 S L28 AND NR>=1  
L30 64 S L28 NOT L29  
L31 3 S L30 AND METHYL ESTER  
L32 8 S L30 AND GLYCYLGLYCYLGLYCYL  
L33 8 S L31,L32 NOT D/ELS  
L34 6 S L33 NOT ALANINE  
SEL RN 1-4  
L35 2 S L34 NOT E1-E4  
E C36H38N4O9/MF  
L36 9 S E3 AND 46.150.18/RID AND 4/NR  
L37 1 S L36 AND TYROSYL

E C37H40N4O9/MF  
L38 2 S E3 AND 46.150.18/RID AND 4/NR  
L39 1 S L38 AND TYROSYL  
L40 4 S L35,L37,L39

FILE 'REGISTRY' ENTERED AT 16:04:14 ON 11 OCT 2005

SEL RN  
L41 17 S E1-E4/CRN  
L42 6 S L41 NOT (CONJUGATE OR MXS/CI OR COMPD)  
L43 5 S L42 NOT ALANINE  
L44 9 S L40,L43  
SAV L44 GEORGE086/A  
SAV L21 GEORGE086A/A

FILE 'HCAPLUS' ENTERED AT 16:06:38 ON 11 OCT 2005

L45 0 S L44 AND L1-L5  
L46 858 S L44,L22  
L47 9 S L46 AND COSMETIC?/SC,SX,CW,CT,BI  
L48 1 S L46 AND ?WRINKL?  
L49 9 S L47,L48  
L50 1 S L46 (L) COS/RL  
L51 9 S L49,L50  
L52 12 S L46 AND COSMETICS+OLD,NT,PFT,RT/CT  
L53 14 S L51,L52  
L54 10 S L53 NOT L23  
L55 5 S L54 AND 62/SC,SX

FILE 'HCAPLUS' ENTERED AT 16:09:30 ON 11 OCT 2005

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